REMARKS

Present Status of Application

The Office Action has rejected claim 1 under 35 U.S.C. 102(e) as being anticipated by Lendaro US 20040036808. The Office Action rejected claims 2, 3, 7 and 8 under 35 U.S.C. 103(a) as being unpatentable over Lendaro '808 in view of Matsuoka 6,009,492. The Office Action rejected claims 4-6 and 9-15 under 35 U.S.C. 103(a) as being unpatentable over Lendaro '808, in view of Matsuoka '492 as applied to claims 1, 2 and 7 above and further in view of Bender et al. 5,519,851.

Applicants have added new claims 16-19 to more clearly define the present invention. After entry of the foregoing amendments, claims 1-19 remain pending in the present application. The newly added claims are well supported in the original specification, more particularly, in paragraphs [0024] ~ [0027]. It is believed that no new matter is added by way of these amendments made to the claims or otherwise to the application.

Claim Rejections – 35 U.S.C. § 102

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Lendaro US 20040036808.

In response to the rejection thereto, Applicants hereby otherwise traverses this rejection. As such, Applicants submit that claim 1 is novel and nonobvious over Lendaro '808, or any of the other cited references, taken alone or in combination, and should be allowed.

Applicants have previously submitted that "Lendaro '808 fails to teach, disclose or suggest 'a control apparatus coupled to the shared bus so that **the bus isolator isolates the second device from the shared bus when the control apparatus needs to access the first device** and the bus isolator connects the second device with the shared bus when the control apparatus needs to access the second device'" on May 11, 2006 (Emphasis added). In the current Final Office Action, the Examiner alleged that "Lendaro discloses [0032] a mode of operation where "switch 36 operatively connects auxiliary ICs/circuitry 34 with main I^2C bus/system 32 so that the auxiliary ICs are connected to and may communicate to ICs connected to the main I^2C bus via the normal I^2C protocol". Relying on that, the Examiner further contended: "the main micro only connects the auxiliary ICs to the main I^2C bus when communication is needed", and "there exists another mode of operation where 'switch 36 allows auxiliary ICs 34 to be isolated from the main I^2C bus".

Applicants respectfully disagree. As required by claim 1, "**the bus isolator isolates the second device from the shared bus when the control apparatus needs to access the first device**". Such a limitation would also be understood by those skilled in the art as that if the device is connecting with the shared bus, the control apparatus does not need to access the first device. Likewise, as required by claim 1, "the bus isolator connects the second device with the shared bus when the control apparatus needs to access the second device". Therefore, it should be understood that such a system for accessing a plurality of devices using a single bus, as set forth in claim 1, as having such a feature, i.e., only under a circumstance that the shared bus does not need to access the first device, and needs to access the second device, the bus isolator

connects the second device. However, even though as alleged by the Examiner, "Lendaro discloses [0032] a mode of operation where "switch 36 operatively connects auxiliary ICs/circuitry 34 with main I^2C bus/system 32 so that the auxiliary ICs are connected to and may communicate to ICs connected to the main I^2C bus via the normal I^2C protocol", it is an evidence teaching away from the current Application, as set forth in claim 1. In the specified mode, the switch 36 connects auxiliary ICs to communicate to ICs connected to the main I^2C bus via the normal I^2C protocol. Therefore, in such a mode, as taught by Lendaro, the auxiliary ICs and the ICs connected to the main I^2C are connected or at least connectable to each other, which is contradicted from the addressed limitation as set forth in claim 1. Whatever connected or connectable, the auxiliary ICs and the ICs connected to the main I^2C are needed to be accessed by the main I^2C bus.

Accordingly, Applicants submit that the claimed subject matter as discussed above, as set forth in claim 1, is neither taught, disclosed, nor suggested by Lendaro, or any of the other cited references, taken alone or in combination, and thus the system as set forth in claim 1 should be allowable.

Claim Rejections – 35 U.S.C. § 103

The Office Action rejected claims 2, 3, 7 and 8 under 35 U.S.C. 103(a) as being unpatentable over Lendaro '808 in view of Matsuoka 6,009,492.

In response to the rejection to claims 2, 3, 7 and 8 under 35 U.S.C. 103(a) as being unpatentable over Lendaro '808 in view of Matsuoka '492, Applicants hereby otherwise traverse

this rejection. As such, Applicant submits that claims 2, 3, 7 and 8 are now in condition for allowance.

Regarding claim 2, the Examiner contended in the current Office Action, page 3, that "the functionality of the bus arbitrator is included in the I/O controller much like the claimed invention where the bus arbitrator is included in the control apparatus", and in such a way, the Examiner insisted that "the I/O controller 3 contains the functional component that perform the task of the bus arbitrator".

Applicants respectfully disagree. Applicants submit that the fact an I/O controller having some specified functionality of a bus arbitrator does not require the I/O controller really contain a bus arbitrator. For example, a cellular phone having a functionality of Television, e.g., displaying video programs would not be interpreted as containing a television therein. Similarly, since it is not disclosed by Matsuoka, that a bus arbitrator is included therein, Lendaro and Matsuoka, considered as a whole, does not teach each and every element as set forth in claim 2. Thus, claim 2 is submitted to be novel and nonobvious over Lendaro '808, Matsuoka '492, or any of the other cited references, taken alone or in combination, and should be allowed.

Claim 3 depends on allowable claim 1, thus should also be allowable.

Claim 8 depends on allowable claim 7, the allowability of which is to be discussed below, thus should also be allowable.

Similarly, with respect to claim 7, recites in part:

A control apparatus ... comprising:

...the bus arbitrator controls the bus exchanger to connect with a circuit internally linked to the first device and to activate the bus isolator to isolate the second device from the shared bus when the control apparatus needs to access the first device and the bus arbitrator controls the bus exchanger to connect with a circuit internally linked related to the second device when the control apparatus needs to access the first device.

For the similar reason addressing to claim 1, Lendaro '808, even modified by Matsuoka '492, does not teach, disclose or suggest "the bus arbitrator controls the bus exchanger to connect with a circuit internally linked to the first device and to activate the bus isolator to isolate the **second device from the shared bus when the control apparatus needs to access the first device and the bus arbitrator controls the bus exchanger to connect with a circuit internally linked related to the second device when the control apparatus needs to access the first device**" (Emphasis added). Therefore, Applicants submit that claim 7, as currently amended, is novel and nonobvious over Lendaro '808 and Matsuoka '492, or any of the other cited references, taken alone or in combination, and thus should be allowable.

Claims 4-6 and 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lendaro '808, in view of Matsuoka '492 as applied to claims 1, 2 and 7 above and further in view of Bender et al. 5,519,851.

Applicants submit that claims 4-6 depend on allowable claim 1, and thus should also be allowable; claims 9-11 depend on claim 7, and thus should also be allowable.

Likewise, with respect to claim 12, recites in part:

A system for accessing a plurality of devices through a single bus, comprising:

> ... the control apparatus controls the shared bus to connect with a circuit internally linked to a first device when the control apparatus needs to access a first device and the control apparatus controls the shared bus to connect with a circuit internally linked to the second device when the control apparatus needs to access the second device.

For the similar reason addressing to claims 1 and 7, Lendaro '808, even modified by Matsuoka '492 and/or Bender et al. '851, does not teach, disclose or suggest "the control apparatus controls the shared bus to connect with a circuit internally **linked to a first device when the control apparatus needs to access a first device** and the control apparatus controls the shared bus to connect with a circuit internally **linked to the second device when the control apparatus needs to access the second device**" (Emphasis added). Therefore, Applicants submit that claim 12, as currently amended, is novel and nonobvious over Lendaro '808, Matsuoka '492 and Bender et al. '851, or any of the other cited references, taken alone or in combination, and thus should be allowable.

Applicants submit that claims 13-15 depend on allowable claim 12, and thus should also be allowable.

New Claims

Claims 16-19 have been newly added to further define and/or clarify the scope of the invention.

Independent claim 16 is allowable for at least the reason that the references of records do not disclose, teach, or suggest at least the features that "the bus isolator is controlled by the control apparatus to isolate the first device and the second device from the shared bus in consideration of signaling demand for data transmission to prevent any data error resulting from a mutual interference of the signal transmission between the first device and the second device" as claimed.

Claim 17 is allowable for at least the reason that the references of records do not disclose, teach, or suggest at least the features that "a triggering signal is transmitted to the bus isolator for performing the isolation" as claimed.

Claim 19 is allowable for at least the reason that the references of records do not disclose, teach, or suggest at least the features that "if the signaling demand for data transmission on the shared bus for the second device is lower than the first device, the bus isolator connects the second device with the shared bus immediately when the control apparatus carries out data transmission to the second device" as claimed.

Claim 19 is allowable for at least the reason that the references of records do not disclose, teach, or suggest at least the features that "a pre-defined isolation period is expired when the bus exchanger is permitted to switch the first device or the second device for authority for the shared bus" as claimed.

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CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 1-19 are in proper condition for allowance and an action to such effect is earnestly solicited. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,

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